

Last year we spent over \$200 billion in Medicare and Medicaid for Alzheimer's care. That is just a fraction of the total cost. Think about what individual families spent, what private insurance sources spent, the charitable care that was given to Alzheimer's patients. So when we talk about increasing the NIH budget by \$2 billion for 1 year, it is a tiny fraction. It is 1 percent of the amount we are spending on Alzheimer's.

If we could find a way to detect Alzheimer's earlier, delay its onset, reduce the period of time of suffering, or perhaps even find a cure, God willing, it would have a dramatic, positive impact on so many lives and families and on our bottom-line Federal budget. Take that argument about Alzheimer's and apply it as well to cancer. How many of our families and friends are suffering and fighting cancer right now? My wife and I were struck over the holidays by how many of our close friends are battling cancer at this moment. We know they are looking for hope. They are looking for drugs. They are looking for something that will break through and give them a chance at life. That is why I believe this biomedical research is so critical.

Let me add one postscript. Stopping with these agencies is not enough. I recently visited the Department of Energy. The new Secretary there, Ernest Moniz, and I were talking about biomedical research. He said that when it comes to the technology for imaging that is making such a difference in the world, it isn't just in biomedicine; it is in engineering and science as well, in the Department of Science, within the Department of Energy. So let's not be shortsighted. Let's have an open mind about innovation and creation.

Last week I was in Peoria, IL, an area I am proud to represent. I went to visit OSF Hospital there. I went to what is known as the Jump Center. We don't forget that name very easily. What they have done in the Jump Center is they have combined the University of Illinois Medical School and the University of Illinois Engineering Department in a common effort to bring new engineering and new technology to medicine and medical breakthroughs. What they are doing there is amazing—first, training doctors and medical professionals to do their job effectively without mistakes. That, of course, is the ultimate outcome we are looking for. Over their shoulders are engineers and technicians who are looking at these doctors doing their work, finding new applications for computers and engineering technology that can make their work easier and more effective.

They showed me a model of the human heart. It was a heart of an infant with serious heart problems. This model they gave me was the actual human heart reproduced of an infant who was facing surgery. They took the MRIs and the CAT scans, put them into a 3D copier, and produced this little heart that you could hold in your hand.

They were able to give that heart to the surgeon to look at before the surgery, and they opened it so that the surgeon could look inside that heart model—a model which tracked the reality of that infant—and know before the surgery what he would find.

It meant less time on the heart-lung machine, a more likely positive recovery. It was the use of technology in engineering to move us forward and to give that little baby a fighting chance. So I thank Senator BLUNT. I want to especially thank my colleague Senator PATTY MURRAY. She has been a terrific leader in this field, both on the appropriations and authorizing committees, and also Senator LAMAR ALEXANDER.

I think we have all come to conclude that regardless of how much time we have in the Senate, we should leave a mark that makes a difference. When it comes to biomedical research, this year's budget, which Senator BLUNT referred to, will make a difference. Now, let's make sure it is not a one-hit wonder. Let's make sure we do it again in next year's budget as well.

FLOODING IN THE MIDWEST

Mr. DURBIN. Mr. President, I would also like to speak for a moment about the flooding situation in the Midwest, and, of course, in my colleagues' neighboring State of Missouri.

Last month, right in the midst of the holidays, rain storms swept through my State, covering it with 7 inches of rainfall in a very short period of time. The heavy rainfall caused water levels on the rivers to reach record highs. We were surprised. We expect this in the spring, not in December. Communities had to evacuate their homes for their own safety. Sadly, these storms were so severe they flooded roadways, claiming the lives of 10 people whose vehicles were swept away by the floods. Many of them did not realize how high the water actually was in these flash floods or how fast it was moving. They got caught in dangerous waters.

Two areas that were some of the worst impacted were Alexander and Randolph Counties on the Mississippi River—Monroe County, I might add as well. Last Wednesday I went to visit two towns in these areas, Olive Branch and Evansville, to talk to the residents. In Olive Branch I met with Alexander County board vice-chair Lamar Houston and spoke with State representative Brandon Phelps. Both have been working diligently to help the community recover.

I have some photographs which I think will tell the story. This a photograph from Olive Branch. You can see water completely surrounding the home and covering the nearby areas. The levee that protects the communities of Olive Branch, Hodges Park, and Unity was breached and overtopped by a record crest at the Mississippi River. These overtops caused miles of flood damage, impacting ag lands as well as homes and businesses.

Before flooding occurred, local law enforcement and emergency responders tried to evacuate everybody as quickly as possible. Thankfully, a lot of people heeded the call and went to find shelter with family and friends, but many residents I spoke with in these towns were still concerned about being able to recover from the flood and the damage.

One man from Olive Branch, Bruce Ford, said his auto repair shop was engulfed by water. He worries he could be out of business for months. Bruce is working night and day to clean out the debris and to move his equipment back in. He was not sure when his shop would be ready to open. Even worse, if the levee breaches again this spring, which it might, he worries that he will not have the means to fix it all over again in just a few months.

In Evansville—and this photo is taken in that area; this was taken on New Year's Eve crossing the Mississippi River at St. Louis. It shows the devastation on the Illinois side. As you can see, these buildings are nearly completely submerged in water, and for many areas around St. Louis the damage you see here is typical. When I went to visit Evansville, about an hour south from here, I met with residents who worked around the clock to sandbag homes and businesses to keep the Kaskaskia River out of their town.

I met with Evansville mayor Craig Valleroy, emergency management coordinator Nancy Shilling, who did a great job in making a presentation to me, and State Representative Jerry Costello, Jr.

I was given a tour around the waterfront and flooded areas. As is often the case with disasters like these, I was impressed with the local residents, first responders, local officials, and volunteers, who just stepped up and started filling sandbags. By building a wall of sandbags around downtown, Evansville residents were able to hold off the worst of the flooding.

Last week, I spoke with the Illinois Emergency Management Agency director, James Joseph, and the FEMA Regional Administrator, Andrew Velasquez, about the rain and flooding. The Governor declared 23 counties State disaster areas. State and local emergency responders were dispatched to affected areas. The State provided almost 1 million sandbags—997,000; 4,000 tons of sand; and 117 DOT trucks for flood mitigation.

As the water continues to recede in the coming days, local officials and the Illinois Emergency Management Agency are working together to assess the damages. I might say there is one issue that Senator KIRK and I have looked at over and over again. We are blessed in our State to have about 13 million people. The largest percentage of them are around the Chicagoland area, but we have a vast State beyond Chicago. That is where I hail from—downstate Illinois, with hundreds of miles of small town and rural areas.

When they go through flooding like this, and they are making a calculation of how much damage there has to be in order for the Federal Government to step in and help pay for the damage, they take into account the entire State and its population. The net result is, had this flooding occurred in a sparsely populated State, they would have received Federal assistance. But we have to hit a threshold number of about \$18 million in public infrastructure damage before we qualify for Federal assistance.

Senator KIRK and I have both witnessed the damage of two tornadoes in Illinois, one in Washington, IL, and another one in Harrisburg, which at first glance we thought would clearly qualify for Federal assistance. In neither case did we make the threshold of \$18 million in damage. So I think this formula needs to be recalculated. The fact that we happen to have a great city like Chicago and the region around it as part of our State should not really inure to the detriment of people downstate in smaller rural areas who suffer this kind of damage from flooding and tornadoes.

I am proud of the volunteers who came forward. I want to thank our National Guard. They are always there when we need them. Local law enforcement never gets enough credit—our firefighters, police, first responders, hospitals, and volunteers.

When I went into Olive Branch—it is a tiny town—most of the activity in the community center that I went into was happening in the kitchen. They said: Go to that lady wearing the pink hat. She is in charge. She had been there every single day since this flooding started, asking all the neighbors to bring in covered dishes and some food for the volunteers and the people who were displaced from their homes. God bless them for caring so much for their neighbors and responding in this time of need.

I want to recognize the hard work of the Federal and State employees who have been engaged in this. I have no doubt that the people of my State who have been impacted by these floods are going to roll up their sleeves and clean up the mess and get ready to make life normal again.

Our thoughts are with the many people today who have lost their loved ones. There were about 25 who died in these floods in the Midwest. We will again stand with them and others as we prepare for the future, to rebuild as the people of Illinois and the United States always do, stronger for the experience.

I yield the floor.

I suggest the absence of a quorum.

The PRESIDING OFFICER (Mr. FLAKE). The clerk will call the roll.

The senior assistant legislative clerk proceeded to call the roll.

Mr. NELSON. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

MISSION TO MARS AND SPACE SHUTTLE FLIGHT 30TH ANNIVERSARY

Mr. NELSON. Mr. President, we are going to Mars—Mars or bust. We are going to send a human crew to Mars in the decade of the 2030s. We are right at the cusp of the breakthrough to show how this is possible. I have just returned from the Kennedy Space Center, meeting with its Director, Bob Cabana. All of the ground infrastructure—the two launch pads—are being reconfigured. Old abandoned launch pads on Cape Canaveral Air Force Station are being redone with new commercial launch pads.

Less than 2 years from right now, in September of 2017, we will be launching Americans again on American rockets to go to and from the International Space Station. Three years from now, we will be launching the full-up test of the largest and most powerful rocket ever invented by mankind, the Space Launch System, with its spacecraft Orion, which will be the forerunner that will ultimately take us to Mars.

This appropriations bill that we passed just before Christmas treats NASA with a decent increase of over \$1 billion and puts the resources into each part of NASA—its scientific programs, its technology programs, its exploration programs, its aviation, and especially aviation research programs—to keep us moving forward in our development of technology.

I am especially enthusiastic about bringing this message because 30 years ago today, I had the privilege of launching on the 24th flight of the space shuttle into the heavens for a 6-day mission. Let me tell you about some of the members of this crew, just to give you an idea of how accomplished these people are.

In NASA terminology in the space shuttle, the commander sits on the left seat; on the right seat, his pilot—in effect, his copilot. He handles all of the systems. In almost all cases, those pilot astronauts are military test pilots. They are so good that when they land that space shuttle without an engine, they have one chance; they are so good they can put it on a dime.

Of course, our crew, 30 years ago launching from pad 39-A—the same pad that I saw on Saturday that has now been transformed into a commercial launch pad under lease to SpaceX—that crew was the best of the best. The two pilot astronauts were naval aviators. In the left seat was CDR Hoot Gibson—Robert Gibson, the best stick-and-rudder guy in the whole astronaut office. He could put it down, and you would hardly know that the wheels had touched.

In the right seat, then Marine colonel, now Marine general, retired, Charlie Bolden, who then went on to command three missions thereafter, and today is—for the last 7 years—the Administrator of NASA. He is the one who has transformed NASA and has us going in the right direction now to go

to Mars and at the same time working out the arrangements for the commercial marketplace to flourish, as we are seeing with Boeing and SpaceX, which will be the two rockets that will launch in less than 2 years, taking Americans to and from the International Space Station.

Let me tell you about the rest of the crew that launched 30 years ago today. The flight engineer, Steve Hawley, an astrophysicist. By the way, he is the one who deployed for the first time the Hubble Space Telescope. An astrophysicist, Dr. George “Pinky” Nelson. By the way, all of these guys are doctors. They are Ph.D.s. Also, Dr. Franklin Chang-Diaz, an astronaut who came to America from Costa Rica—not speaking a word of English after high school and taught himself English. He has a Ph.D. in plasma physics from MIT. While he was still flying, seven times as an astronaut, he was building a plasma rocket. Today that plasma rocket is one of the propulsion systems that NASA is considering when we go to Mars. If you saw the Matt Damon movie, “The Martian,” the author of the book had consulted with Franklin about the technology that is referenced in the book as the propulsion that sent that spacecraft to and from Mars. Another is engineer Bob Cenker, an RCA engineer. We launched an RCA communications satellite in the course of the mission.

The seventh is yours truly. I performed 12 medical experiments, the primary of which was a protein crystal growth experiment in zero-g, sponsored by the medical school at the University of Alabama at Birmingham—their comprehensive cancer center. The theory was if you could grow protein crystals—and out of the influence of gravity—then you could grow them larger and more pure, so when you brought them back to Earth, examining them either through x-ray diffraction or an electron microscope, you could unlock the secrets of their architecture and get the molecular structure.

I also performed the first American stress test in space in an unmechanized treadmill. You wonder how in zero-g you can propel yourself running on a treadmill. I had to put on a harness with bungee cords that would force me down onto the treadmill, and I pulled and pushed with my feet. We were trying to see what happens to our astronauts who go outside on spacewalks. Their hearts would start skipping beats. So the idea was to get the heart rate up and use me as a comparison.

Indeed, what happened was I ran for 20 minutes, pulling and pushing. Lo and behold I discovered that the tape recorder was not working and had to repeat it. It made so much racket in that small confined space that our crew was mighty happy when I finished. Thus, the space doctors had additional data to study, and they have published that. We thought it was the first stress test in space, but later on we found out that the Soviets had done stress tests—we don’t know how long.